

*Annex  
Comparison file*

Enclosed are three tables each for CIARDS and CSRS that illustrate the effect of the Stevens' plan. I am also enclosing a page presenting the assumptions used and a clarification of the effect of the million dollar fund.

I will try to produce the other tables requested before I come to the UBLIC meeting on Tuesday. These will show the effect of an employee contribution of 10% and employer of 4%. Also, you may have a need for other figures.

Upon review of the Stevens plan and the resulting benefits, I think the CIARDS system makes out pretty well because of the lack of a reduction and the supplemental benefit payable until age 62. While total benefits are below CIARDS, the plan may be one of the better ones you will see this year.

The following are the advantages of the Stevens approach for CIARDS:

Benefits at 55 about equal to the current system.

Opportunity for employees to design their own plan through the contribution election.

Relatively level lifetime income because of the supplement.

An approach that the employees seem to like because of the large funds that will build up.

Better benefits for employees who leave before 50.

Disadvantages are:

Loss of the peak in suddenly large benefit at 50 which draws employees to 50 and causes rapid retirement thereafter.

Loss of benefit value to inflation (but the current system may lose full indexing anyway).

Low benefits to employees who do not participate fully in the plan.

Higher employee contribution.

Earliest retirement at age 55.

*3/4/85*

### Assumptions for Stevens' Plan Examples

The benefits in the accompanying tables were calculated using the following economic assumptions:

Investment income - 10% initially dropping to 6% a year after the seventh year.

General schedule increases - 5.5% a year.

Inflation - 4% a year.

The benefits illustrate the relative effect of the Stevens' proposal and the current CSRS and CIARDS programs. Stevens' plan benefits combine a capital accumulation plan with a defined benefit plan and social security. The illustration is for an employee who participates fully in the capital accumulation plan throughout the career.

While the tables show the impact of the plan on full careers at retirement, there are other important aspects that will have to be carefully examined to determine the overall impact of the proposal. These include the employee contributions and benefits payable on disability, death or other separation before full retirement.

## Employee entering the CSRS in 1985

## Retiring at Age 62 with 20 Years of Service

Grade at retirement	GS-9	GS-11	GS-15	SES
Final salary on 1985 scale	\$23,983	\$30,780	\$59,230	\$68,700
Senator Stevens' plan benefits at retirement:				
Capital accumulation plan	\$3,803	\$5,524	\$9,061	\$9,547
Pension plan	\$3,622	\$4,693	\$8,859	\$10,474
Social security	\$3,238	\$3,694	\$4,455	\$4,455
Total benefit from Stevens' plan:				
At retirement	\$10,662	\$13,910	\$22,375	\$24,475
At age 80	\$7,651	\$9,706	\$15,130	\$16,501
Benefit from current system	\$8,172	\$10,589	\$19,989	\$23,634

Note: Benefits are shown for an employee who participated in the capital accumulation plan in full throughout the career. (

4% - Employee  
8% - Gov't

Employee entering the CSRS in 1985  
Retiring at Age 55 with 30 Years of Service

Grade at retirement	GS-9	GS-11	GS-15	SES
Final salary on 1985 scale	\$26,889	\$34,299	\$64,456	\$68,700
Senator Stevens' plan benefits at retirement:				
Capital accumulation plan	\$6,079	\$8,364	\$14,571	\$16,380
Pension plan	\$5,244	\$6,632	\$12,677	\$13,511
Social security at 62	\$4,894	\$5,282	\$5,810	\$5,810
Total benefit from Stevens' plan:				
At retirement	\$11,322	\$14,996	\$27,248	\$29,891
At age 62	\$14,078	\$17,412	\$27,919	\$30,019
At age 80	\$10,370	\$12,462	\$19,003	\$20,190
Benefit from current system	\$14,233	\$18,001	\$34,407	\$36,673

Note: Benefits are shown for an employee who participated in the capital accumulation plan in full throughout the career.

## Employee entering the CSRS in 1985

## Retiring at Age 65 with 40 Years of Service

Grade at retirement	GS-9	GS-11	GS-15	SES
Final salary on 1985 scale	\$28,342	\$34,299	\$67,939	\$68,700
Senator Stevens' plan benefits at retirement:				
Capital accumulation plan	\$9,877	\$13,145	\$23,713	\$25,905
Pension plan	\$8,642	\$10,458	\$20,716	\$20,948
Social security	\$7,151	\$8,057	\$8,613	\$8,613
Total benefit from Stevens' plan:				
At retirement	\$25,669	\$31,661	\$53,041	\$55,466
At age 80	\$19,056	\$23,127	\$37,172	\$38,562
Benefit from current system	\$20,509	\$24,819	\$49,162	\$49,712

Note: Benefits are shown for an employee who participated in the capital accumulation plan in full throughout the career.

Employee entering the CIARDS in 1985  
Retiring at Age 60 with 30 Years of Service

Grade at retirement	GS-9	GS-11	GS-15	SES
Final salary on 1985 scale	\$26,889	\$34,299	\$64,456	\$68,700
Senator Stevens' plan benefits at retirement:				
Capital accumulation plan	\$6,590	\$9,067	\$15,796	\$17,756
Pension plan	\$6,097	\$7,711	\$14,740	\$15,711
Social security at 62	\$5,243	\$5,659	\$6,225	\$6,225
Total benefit from Stevens' plan:				
At retirement including supplement	\$17,930	\$22,438	\$36,761	\$39,692
At age 62	\$17,196	\$21,454	\$34,997	\$37,742
At age 80	\$12,354	\$14,987	\$23,354	\$24,901
Benefit from current system	\$15,182	\$19,201	\$36,701	\$39,118

Note: Benefits are shown for an employee who participated in the capital accumulation plan in full throughout the career.

Employee entering the CIARDS in 1985  
Retiring at Age 50 with 25 Years of Service

Grade at retirement	GS-9	GS-11	GS-15	SES
Final salary on 1985 scale	\$25,436	\$32,539	\$62,714	\$68,700
Senator Stevens plan benefits at retirement:				
Capital accumulation plan	\$4,382	\$6,161	\$10,488	\$11,252
Pension plan	\$4,847	\$6,149	\$11,737	\$13,092
Social security at 62	\$3,917	\$4,328	\$4,990	\$4,990
Total benefit from Stevens' Plan:				
At retirement including supplement	\$13,146	\$16,637	\$27,215	\$29,334
At age 62	\$10,476	\$13,024	\$20,795	\$22,341
At age 80	\$7,944	\$9,622	\$14,703	\$15,687
Benefit from current system	\$12,069	\$15,310	\$29,225	\$32,598

Notes: The current version of the Stevens' plan would not permit retirement until age 55.

Benefits are shown for an employee who participated in the capital accumulation plan in full throughout the career.

Employee entering the CIARDS in 1985  
Retiring at Age 55 with 30 Years of Service

Grade at retirement	GS-9	GS-11	GS-15	SES
Final salary on 1985 scale	\$26,889	\$34,299	\$64,456	\$68,700
Senator Stevens' plan benefits at retirement:				
Capital accumulation plan	\$6,079	\$8,364	\$14,571	\$16,380
Pension plan	\$6,097	\$7,711	\$14,740	\$15,711
Social security at 62	\$4,894	\$5,282	\$5,810	\$5,810
Total benefit from Stevens' plan:				
At retirement including supplement	\$17,070	\$21,358	\$35,121	\$37,900
At age 62	\$14,821	\$18,351	\$29,715	\$31,934
At age 80	\$10,891	\$13,120	\$20,260	\$21,530
Benefit from current system	\$15,182	\$19,201	\$36,701	\$39,118

Note: Benefits are shown for an employee who participated in the capital accumulation plan in full throughout the career.



Income from Fund Balance under a Capital Accumulation Plan

The projection of the accumulation of defined contribution plans produces impressive balances over a full career. However, it is important to place these in the perspective of inflation. General economic theory is that investment return will be about 2% higher than inflation over the long run. Therefore, expected earnings of, for instance 9%, must be discounted by at least 7% a year to reveal the real dollar value of the accumulated balances.

Projected funds of a million dollars or more with annual returns of \$100,000 appear very comfortable. However, if the retiree faces a price tag of \$100,000 for a new car (easy terms of \$3,300 a month) and has to pay \$10 for a quart of milk and \$4 for a daily newspaper; the income takes on a new perspective. The following tables attempt to provide that perspective by first comparing the benefits under the current CIARDS to the capital accumulation approach under the same set of assumptions and then by discounting all values to 1985 by the rate of inflation.

One example produced at the Agency shows an employee who begins to contribute 1% at the beginning of the career and eventually increases the contribution to 10% with the government matching the first 4% at \$2.00 for every \$1.00. The projection assumes that investment return will be 9% a year and that the General Schedule will grow by 7% a year. The following analysis adds the assumptions that inflation will also be 7% a year and that the employee entered service at 25.

If the employee retires at age 55 with 30 years of service, CIARDS would currently provide an annuity of \$209,000 indexed to the rate of inflation. The capital accumulation fund would have built to \$1,233,000. The employee could leave the principle and receive \$111,000 a year. Alternatively, the employee could purchase a lifetime annuity of \$122,000 a year. The employee would also be entitled to a social security benefit of \$77,000 at age 62.

Allowing for full indexing on the CIARDS and social security benefit, and considering that the lifetime annuity payment does not increase, the employee would be entitled to the following annual benefits:

Age	CIARDS	Capital Accumulation	Social Security	Total New Plan
55	\$209,000	\$122,000	\$0	\$122,000
56	\$223,630	\$122,000	\$0	\$122,000
57	\$239,284	\$122,000	\$0	\$122,000
58	\$256,034	\$122,000	\$0	\$122,000
59	\$273,956	\$122,000	\$0	\$122,000
60	\$293,133	\$122,000	\$0	\$122,000
61	\$313,653	\$122,000	\$0	\$122,000
62	\$335,608	\$122,000	\$0	\$122,000
63	\$359,101	\$122,000	\$77,000	\$199,000
64	\$384,238	\$122,000	\$82,390	\$204,390
			\$88,157	\$210,157
65	\$411,135	\$122,000	\$94,328	\$216,328
66	\$439,914	\$122,000	\$100,931	\$222,931
67	\$470,708	\$122,000	\$107,996	\$229,996
68	\$503,658	\$122,000	\$115,556	\$237,556
69	\$538,914	\$122,000	\$123,645	\$245,645
70	\$576,638	\$122,000	\$132,300	\$254,300
71	\$617,002	\$122,000	\$141,561	\$263,561
72	\$660,192	\$122,000	\$151,471	\$273,471
73	\$706,406	\$122,000	\$162,074	\$284,074
74	\$755,854	\$122,000	\$173,419	\$295,419
75	\$808,764	\$122,000	\$185,558	\$307,558
76	\$865,378	\$122,000	\$198,547	\$320,547
77	\$925,954	\$122,000	\$212,445	\$334,445
78	\$990,771	\$122,000	\$227,317	\$349,317
79	\$1,060,125	\$122,000	\$243,229	\$365,229
80	\$1,134,333	\$122,000	\$260,255	\$382,255

The main difficulty in comprehending these projections is that inflation over a long period increases any current amount to totals that appear to be unrealistically large. One common solution is to deflate such projections to current real dollars to show amounts that can be related to current salary and expense levels. The following is the above table deflated by 7% a year:

Age	CIARDS	Capital Accumulation	Social Security	Total New Plan
55	\$27,456	\$16,027	\$0	\$16,027
56	\$27,456	\$14,978	\$0	\$14,978
57	\$27,456	\$13,998	\$0	\$13,998
58	\$27,456	\$13,083	\$0	\$13,083
59	\$27,456	\$12,227	\$0	\$12,227
60	\$27,456	\$11,427	\$0	\$11,427
61	\$27,456	\$10,679	\$0	\$10,679
62	\$27,456	\$9,981	\$6,299	\$16,280
63	\$27,456	\$9,328	\$6,299	\$15,627
64	\$27,456	\$8,718	\$6,299	\$15,017
65	\$27,456	\$8,147	\$6,299	\$14,446
66	\$27,456	\$7,614	\$6,299	\$13,913
67	\$27,456	\$7,116	\$6,299	\$13,415
68	\$27,456	\$6,651	\$6,299	\$12,950
69	\$27,456	\$6,215	\$6,299	\$12,515
70	\$27,456	\$5,809	\$6,299	\$12,108
71	\$27,456	\$5,429	\$6,299	\$11,728
72	\$27,456	\$5,074	\$6,299	\$11,373
73	\$27,456	\$4,742	\$6,299	\$11,041
74	\$27,456	\$4,432	\$6,299	\$10,731
75	\$27,456	\$4,142	\$6,299	\$10,441
76	\$27,456	\$3,871	\$6,299	\$10,170
77	\$27,456	\$3,617	\$6,299	\$9,917
78	\$27,456	\$3,381	\$6,299	\$9,680
79	\$27,456	\$3,160	\$6,299	\$9,459
80	\$27,456	\$2,953	\$6,299	\$9,252

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